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09/705,055	11/02/2000	Hiroyuki Takahashi	CANO-014	6621

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EXAMINER	
PHAM, THIERRY L	

ART UNIT	PAPER NUMBER
2624	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/705,055	TAKAHASHI, HIROYUKI	
	Examiner	Art Unit	
	Thierry L Pham	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-67 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-67 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 7.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-67 are rejected under 35 U.S.C. 102(e) as being anticipated by Owa et al (U.S. 6348971).

Regarding claim 1, Owa discloses an image processing apparatus (host computer, fig. 1) which selects at least one image forming apparatus (printers, fig. 1) from a plurality of image forming apparatuses (plurality of printers connected via network, fig. 1) including at least two types of image forming apparatuses having different printing attributes (i.e. color printer and monochrome printer, fig. 3), said at least one image forming apparatus having predetermined printing attributes (i.e. resolution, fig. 3), and outputs image data to the selected at least one image forming apparatus (sending print data to a plurality of printers via network, fig. 1), the image processing apparatus comprising:
(1) input means (print data generation means for inputting and generating print data, fig. 2, col. 8, lines 6-67) for inputting a group of image data;

(2) distributing means (distributing print data to an appropriate selected printers via a network based upon print job attributes, fig. 1, col. 8, lines 1-67) for distributing the input group of image data depending on printing attributes (print contents/attributes of the print job such as resolution, col. 8, lines 1-67) of the group of image data;
(3) a plurality of image processing means (host computers for processing the print data, col. 3, lines 15-67) for executing image processes corresponding respectively to printing attributes of the distributed image data, on the group of image data (host computer includes a detection and interpretation means for detecting and analyzing the print attributes of the print job and routing the print job to an appropriate printers, cols. 3-4 and cols. 8-9);
(4) selecting means (printer selection means, fig. 7, col. 8, lines 1-67) for selecting at least two image forming apparatuses (selecting monochrome printer and color printers with respect to input image data contents, col. 8, lines 1-67 and col. 12, lines 1-67) from said plurality of image forming apparatuses, which have printing attributes compatible with results of the image processes executed by said image processing means (selecting the printers that are compatible with the print jobs and or a page of the print job, abstract and cols. 8-9 and cols. 13-14); and
(5) output means (outputting to the respective printers, fig. 7, col. 8, lines 1-67) for outputting the image data on which said image processes have been executed, to the selected at least two image forming apparatuses (color printer is assigned to a color print page of the print job and monochrome printer is assigned to a monochrome print page of the print job, col. 8, lines 1-67 and col. 12, lines 1-67).

Regarding claim 2, Owa further discloses an image processing apparatus according to claim 1 wherein said printing attributes comprise at least a first printing attribute (black and white print data attribute, fig. 3-4), and a second printing attribute (color print data attribute, figs. 3-4), and said image processing means comprises first and second image processing means for executing image processes depending on said first printing attribute and said second printing attribute (host computers, fig. 1, cols. 3-4 and cols. 8-9), respectively, wherein said image processing apparatus further comprises judging means (detection means, fig. 7, cols. 8-9 and cols. 12-14) for judging whether or not each of the image data of said group belongs to said first printing attribute after said first image processing means have executed the image process on the image data of said group (determining whether the print data and its attributes is to be printed color and/or monochrome printer, cols. 12-14), and image process re-executing means (color image data is to be printed on the color printer, cols. 12-14) for determining that each of the image data belongs to said second printing attribute and causing said second image processing means to again execute the image process on the each of the image data when a result of the judgment by said judging means is negative, and wherein said output means outputs the image data on which said image

processes have been executed by said first image processing means and said second image processing means, to said selected at least two image forming apparatuses (color image data is to be printed on the color printer and black and white print data is to be printed on the monochrome printer after the print data attribute is detected, cols. 12-14), respectively.

Regarding claim 3, Owa further discloses an image processing apparatus according to claim 1 wherein said printing attributes comprise at least a first printing attribute, and a second printing attribute, and said image processing means comprises first image processing means, and second and third image processing means for executing image processes depending on said first printing attribute and said second printing attribute, respectively, wherein said image processing apparatus further comprises judging means (detection means, cols. 8-9 and cols. 13-14) for judging whether or not each of the image data of said group belongs to said first printing attribute after said first image processing means have executed the image process on all the image data of said group, first image process re-executing means for determining that each of the image data belongs to said first printing attribute and causing said second image processing means to again execute the image process on the each of the image data when a result of the judgment by said judging means is affirmative (figs. 11-14 and fig. 18, cols. 13-14), and second image process re-executing means for determining that each of the image data belongs to said second printing attribute and causing said third image processing means to again execute the image process on the each of the image data when a result of the judgment by said judging means is negative, and wherein said output means outputs the image data on which said image processes have been executed by said second image processing means and said third image processing means, to said selected at least two image forming apparatuses, respectively.

Regarding claim 4, Owa further discloses an image processing apparatus according to claim 3 wherein said first image processing means has a lower resolution than resolutions of said second and third image processing means (figs. 3-4 and figs. 12-16, cols. 12-14).

Regarding claim 5, Owa further discloses an image processing apparatus according to claim 1 wherein said image processing means comprises first image processing means for executing an image process corresponding to a first resolution, and second image processing means for executing an image process corresponding to a second resolution, and wherein said output means outputs the image data on which said image processes have been executed by said first image processing means and said second image processing means, respectively, to said selected at least two image forming apparatuses which have printing attributes compatible to a result of the execution of the image process corresponding to said

first resolution and a result the execution of the image process corresponding to said second resolution, respectively (figs. 3-4 and figs. 12-16, cols. 12-14).

Regarding claim 6, Owa further discloses an image processing apparatus according to claim 1 wherein said printing attributes comprise at least a first printing attribute, and a second printing attribute, and said distributing means distributes the input group of image data as a first group of image data having said first printing attribute and a second group image data having said second printing attribute, and wherein said output means comprises first output means for outputting said first group of image data having said first printing attribute to a first image forming apparatus, second output means for outputting said second group of image data having said second printing attribute to a second image forming apparatus, and delimiter paper supply commanding means (user print condition input section for inputting printing attributes relating to paper supply, fig. 3, col. 4, lines 20-52, col. 6, lines 6-27 and cols. 8-9) for issuing a command instructing supply of delimiter paper to at least one of said first and second image forming apparatuses, at least one portion of the first and second groups of image data where printing attributes are to be switched.

Regarding claim 7, Owa further discloses an image processing apparatus according to claim 6 wherein said at least one of said first and second image forming apparatuses comprises a plurality of feeding sections (plurality of paper type, fig. 3, col. 13, lines 15-52), and said output means comprises control means for providing such control that said delimiter paper is fed from feeding section different from a feeding section from which recording paper for said first group of image data or said second group of image data is fed.

Regarding claim 8, Owa further discloses an image processing apparatus according to claim 1, wherein said printing attributes comprise at least a first printing attribute, and a second printing attribute, and said distributing means distributes the input group of image data as a first group of image data having said first printing attribute and a second group of image data having said second printing attribute, and wherein said output means comprises first output means for outputting said first group of image data having said first printing attribute to a first image forming apparatus, second output means for outputting said second group of image data having said second printing attribute to a second image forming apparatus, and paper supply commanding means for issuing a command instructing supplying to at least one of said first and second image forming apparatuses a predetermined number of sheets of recording paper (fig. 4, fig. 12b, col. 4, lines 20-52 and col. 7, lines 23-40) corresponding to one of said first and second groups of image data output to another of said first and second image forming apparatuses, at

least one portion of the first and second groups of image data where printing attributes are to be switched.

Regarding claim 9, Owa further discloses an image processing apparatus according to claim 8 wherein said at least one of said first and second image forming apparatuses comprises a plurality of feeding sections, and said output means comprises control means for providing such control that said predetermined number of sheets of recording paper (fig. 4, fig. 12b, col. 4, lines 20-52 and col. 7, lines 23-40 and col. 13, lines 15-52) are fed from a feeding section different from a feeding section from which recording paper for said first group of image data or said second group of image data is fed.

Regarding claim 10, Owa further discloses an image processing apparatus according to claim 9 comprising judging means for judging whether or not images are to be formed on said predetermined number of sheets of recording paper, and wherein said output means comprises image formation commanding means for issuing a command instructing an image forming process to be executed on said predetermined number of sheets of recording paper (fig. 4, fig. 12b, col. 4, lines 20-52 and col. 7, lines 23-40 and col. 13, lines 15-52) using a printing attribute of one of said first and second image forming apparatuses if a result of the judgment by said judging means is affirmative.

Regarding claim 11, Owa further discloses an image processing apparatus according claim 9 comprising judging means for judging whether or not images are to be formed on said predetermined number of sheets of recording paper, and wherein said output means comprises non-image formation commanding means for issuing a command instructing a non-image forming process be executed on said predetermined number of sheets of recording paper (fig. 4, fig. 12b, col. 4, lines 20-52 and col. 7, lines 1-67 and col. 13, lines 15-52) if a result of the judgment by said judging means is negative.

Regarding claim 12, Owa further discloses an image processing apparatus according to claim 8 wherein said output means comprises partition paper supply commanding means (fig. 4, fig. 12b, col. 4, lines 20-52 and col. 7, lines 1-67 and col. 13, lines 15-52) for issuing a command instructing partition paper to be supplied between said first group of image and said second group of image data.

Regarding claim 13, Owa further discloses an image processing apparatus according to claim 1 comprising managing means (i.e. server or host computer, fig. 1, col. 3, lines 15-40 and cols. 8-9) for managing said group of image data for each page, and wherein said distributing means distributes said group of image data for each page.

Regarding claim 14, Owa further discloses an image processing apparatus according to claim 13, comprising conversion means (conversion means, col. 8, lines 39-48 and col. 9, lines 45-50) for converting said group of image data into a format that enables said group of image data to be managed for each page.

Regarding claim 15, Owa further discloses an image processing apparatus according to claim 1, wherein said printing attributes include at least color printing, and black-and-white printing (figs. 3-4, fig. 12b, col. 4, lines 15-40 and cols. 8-9).

Regarding claims 16-30, 46-51, 62-63, please see rejection rationale/basis as described in claims 1-15 above for more details.

Regarding claims 31-45: Claims 31-45 are the method claims corresponding to the apparatus claims 1-15 (respectively). The method claims are inherent and included by the operation of the apparatus claims. Please see claims rejection basis/rationale as described in claims 1-15 above.

Regarding claim 52, Owa further discloses an image forming apparatus (printers, fig. 1) for forming, on sheets, image data of a group of image data which are for pages corresponding to image data having a first attribute (i.e. pages with black and white image data, col. 4, lines 6-67 and cols. 8-9), the group of image data including image data having a second attribute for formation images by another image forming apparatus, and the image data having the first attribute which is different from said second attribute (i.e. pages with color image data, col. 4, lines 6-67 and cols. 8-10), wherein the image forming apparatus selects one of a plurality of operation modes depending on a command from a user (users input selections, fig. 1, col. 4, lines 6-67), the operation modes including an insertion mode attribute (color printer is assigned to a color print page of the print job and monochrome printer is assigned to a monochrome print page of the print job, fig. 7, col. 8, lines 1-67 and col. 12, lines 1-67) in which image data of said group of image data which are for the pages corresponding to said image data having the first attribute are formed on sheets from a first feeding unit while sheets from another feeding unit which is different from said first feeding unit are inserted into pages at positions corresponding to image data of said group of image data which have said second attribute, and a non-insertion mode attribute (color

printer is assigned to a color print page of the print job and monochrome printer is assigned to a monochrome print page of the print job, fig. 7, col. 8, lines 1-67 and col. 12, lines 1-67, and monochrome printer cannot print color image data; therefore, prohibiting from printing pages with color) in which the image data of said group of image data which are for the pages corresponding to said image data having the first attribute are formed on sheets from the first feeding unit while the apparatus inhibits insertion of sheets from the another feeding unit which is different from said first feeding unit into the pages at the positions corresponding to the image data of said group of image data which have said second attribute (color printer is assigned to a color print page of the print job and monochrome printer is assigned to a monochrome print page of the print job, fig. 7, col. 8, lines 1-67 and col. 12, lines 1-67).

Regarding claim 53, Owa further discloses an image forming apparatus according to claim 52 wherein in selecting said insertion mode, said image forming apparatus selects one of a plurality of insertion modes depending on a command from a user, the insertion modes including a first insertion mode in which as many sheets as continuous pages corresponding to the image data said group of image data which have said second attribute are fed from said another feeding unit and inserted into positions of the continuous pages corresponding to the image data having said second attribute, and a second insertion mode operating in a manner such that only one sheet from said another feeding unit inserted even into the positions of the continuous pages corresponding to the image data of said group of image data which have said second attribute (cols. 8-9 and cols. 13-14).

Regarding claim 54, Owa further discloses an image forming apparatus according to claim 53, wherein in selecting said first insertion mode, either a mode for permitting image formation on sheets from said another feeding unit or a mode for inhibiting the image formation on the sheets from said another feeding unit is selected based on a command from the user (cols. 3-4 and cols. 13-14).

Regarding claim 55, Owa further discloses an image forming apparatus according to claim 52, wherein said image data having the first attribute are black-and-white image data, and said image data having the second attribute are color image data (figs. 9, cols. 8-9).

Regarding claim 56, Owa further discloses an image forming apparatus according to claim 52 wherein said image forming apparatus is a black-and-white image forming apparatus, and said another image forming apparatus is a color image forming apparatus (fig. 7, cols. 8-9).

Regarding claims 57-58, Owa further discloses an image forming apparatus according to claim 52, wherein said image data having the first attribute are color image data, and said image data having the second attribute are black-and-white image data (fig. 7, cols. 8-9).

Regarding claims 59-61, 64-67, please see rejection rationale/basis as described in claims 52-58 above for more details.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(1) U.S. 2002/0101604A1 to Mima, discloses a printing distributing system for distributing print data via technique as parallel processing (distributing print job to multiple printers based upon user's attributes), wherein color pages of the print job are printed at the color printer and black and white pages of the print job are printed at the monochrome printer.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thierry L Pham whose telephone number is (703) 305-1897. The examiner can normally be reached on M-F (9:30 AM - 6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K Moore can be reached on (703)308-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thierry L. Pham

TP

GABRIEL GARCIA
PRIMARY EXAMINER